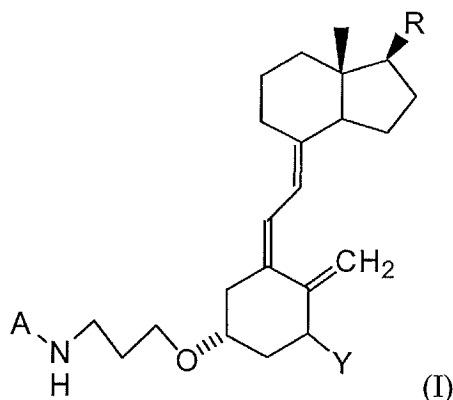


AMENDMENTS TO THE CLAIMS

1. **(Currently Amended)** A method of measuring the amount of a 25-hydroxy vitamin D metabolite, ~~—or—~~ 1 α ,25-dihydroxy vitamin D metabolite or both in a sample using a competitive protein binding assay, wherein displacement of a vitamin D derivative from a vitamin D binding protein is measured and the vitamin D derivative displaces a 25-hydroxy- or 1 α ,25-dihydroxy vitamin D metabolite from the vitamin D binding protein, wherein a displacement efficiency of approximately 1 is obtained by using ~~comprising measuring binding to or displacement from a vitamin D binding protein of a~~ vitamin D derivative of the formula (I):



wherein:

R represents a 25-hydroxylated side-group of vitamin D₂ or of vitamin D₃;

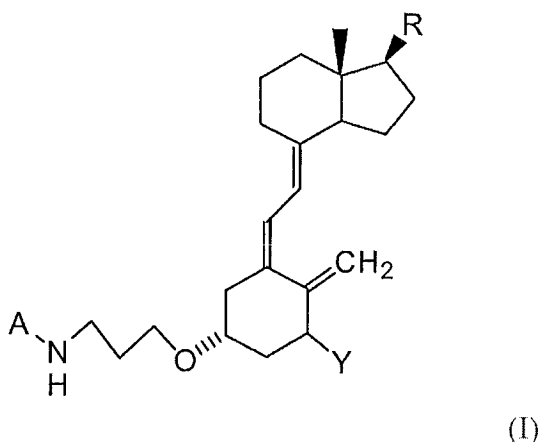
Y represents hydrogen or hydroxy;

A represents a functional group, coupled via a spacer group, ~~which can be bound by a protein with high affinity selected from the group consisting of biotin, digoxigenin, amino acids, characteristic amino acids and peptide sequences, FITC, proteins, peptide groups, protein-A, protein G and vitamin D derivatives;~~

obtained by a method comprising:

- a) cyanoethylating the 3-hydroxy group of a vitamin D starting compound in the presence of potassium hydride and tertiary butanol;
- b) adding lithium hydride and converting the 25-hydroxy group into the lithium alcoholate and subsequently reducing the nitrile group with lithium aluminium hydride; and

- c) linking a spacer group selected from amino carboxylic acid radical and amino polyether radical, p-together with a functional group A on the resulting amino propylether side chain.
2. **(Original)** The method of claim 1, wherein the method is a competitive immunoassay, selected from the group consisting of radioimmunoassay, enzyme immunoassay enzyme-linked immunosorbent assay, luminescence immunoassay and fluorescence immunoassay.
3. **(Original)** The method of claim 1, wherein the method is sandwich immunoassay, selected from the group consisting of immuno radiometric assay, IEMA/EIA, immuno luminometric assay and immunofluorometric assay.
4. **(Currently Amended)** A kit for detection of 25-hydroxy- and 1 α /25- dihydroxy vitamin D metabolites on basis of a competitive protein binding assay, wherein displacement of a vitamin D derivative of the formula (I) from a vitamin D binding protein is measured and the vitamin D derivative displaces a 25-hydroxy- or 1 α ,25-dihydroxy vitamin D metabolite from the vitamin D binding protein, comprising a standardized quantity of solid vitamin D derivative of formula (I) or a standardized solution of a vitamin D derivative of the-formula (I):



wherein:

- R represents a 25-hydroxylated side-group of vitamin D₂ or of vitamin D₃;
- Y represents hydrogen or hydroxy;

A represents a functional group, coupled via a spacer group, selected from the group consisting of biotin, digoxigenin, amino acids, characteristic amino acids, peptide sequences, FITC, proteins, peptide groups, protein-A, protein G and vitamin D derivatives, which can be bound by a protein with high affinity;

wherein the vitamin D derivative is obtained by a method comprising:

- a) cyanoethylating the 3-hydroxy group of a vitamin D starting compound in the presence of potassium hydride and tertiary butanol;
- b) adding lithium hydride and converting the 25-hydroxy group into the lithium alcoholate and subsequently reducing the nitrile group with lithium aluminium hydride; and
- c) linking a spacer group, selected from amino carboxylic acid radical and amino polyether radical, together with a functional group A on the resulting amino propylether side chain.

5. **(Original)** The kit of claim 4, wherein the spacing group has the length of 0.9 to 1.5 nm.
6. **(Original)** The kit of claim 4 wherein A is a biotin group and the spacing group has the length of 0.9 to 1.5 nm.
7. **(Original)** The kit of claim 4 comprising a solid phase selected from the group consisting of a microtitration plate, another solid carrier, a microparticle, a polymeric material, and a cellulose.
8. **(Original)** The kit of claim 7, in which the solid phase is a microparticle comprising agarose.
9. **(Original)** The kit of claim 7, in which the solid phase is a magnetic microparticle.
10. **(Canceled)**
11. **(New)** The method of claim 1, wherein said competitive protein binding assay is selected

from the group consisting of an enzyme immunoassay, an enzyme-linked immunosorbent assay, a radio immunoassay, an immunoradiometric assay, a luminescence assay, a fluorescence immunoassay and an immunofluorometric assay.